

Listing of Claims:

Please **amend** the claims as follows:

Claim 1 (Currently Amended) An isolated nucleic acid that codes for an androgen-binding androgen receptor, wherein said nucleic acid ~~characterized in that it comprises~~

a. ~~the~~ The nucleotide sequence sequences that are shown in SEQ ID NO:1 or SEQ ID NO:3 ~~Seq ID NO 1 and/or 3,~~

b. a nucleotide sequence that codes for a polypeptide of SEQ ID NO 2 or SEQ ID NO:4 ~~corresponds to the sequence from a. within the scope of the degeneration of the genetic code, or~~

c. a nucleotide sequence that hybridizes to the complement of SEQ ID NO:2 or SEQ ID NO:3, with the sequences from a. and/or b. under stringent conditions comprising washing for 1 hour at 62°C in 0.2 x SSC and 0.1% SDS,

wherein said nucleic acid codes for an androgen-binding receptor that modulates the activity of the androgen receptor (AR).

Claim 2 (Currently Amended) An isolated nucleic acid ~~Nucleic acid~~ according to claim 1, wherein said nucleic acid ~~it~~ comprises a protein-coding section ~~of the nucleic acid sequences that are shown in SEQ ID NO:6~~ ~~Seq ID NO 1 and/or 3.~~

Claim 3 (Currently Amended) An isolated nucleic acid which ~~Nucleic acid, wherein it~~ codes for a polypeptide with the amino acid sequence that is shown in SEQ ID NO:2 ~~Seq ID NO 2 and/or 4.~~

Claim 4 (Withdrawn) Polypeptide, wherein it is coded by a nucleic acid according to claim 1.

Claim 5 (Withdrawn) Polypeptide, wherein it comprises the amino acid sequence that is shown in Seq ID NO 2 or 4.

Claim 6 (Withdrawn) Peptide, wherein it comprises the sequence that is shown in Seq. ID NO 5.

Claim 7 (Withdrawn) Peptide, wherein it comprises the amino acid sequence that is shown in Seq. ID NO 6.

Claim 8 (Withdrawn) Use of a polypeptide according to claim 4 or a peptide comprising a sequence of Seq ID NO 5 for the production of antibodies.

Claim 9 (Withdrawn) Antibodies against a polypeptide according to claim 4 or against a peptide comprising a sequence of Seq ID NO 5.

Claim 10 (Withdrawn) Use of an antibody for detection of a polypeptide coded by a nucleic acid of claim 1 in the tumor tissue.

Claim 11 (Withdrawn) Use of a probe with nucleic acid sequences that are complementary to the nucleic acid sequences, that code for the peptide comprising a sequence of Seq ID NO 5, for the

production of a reagent for detecting the presence of mRNA in tumor cells according to claim 1.

Claim 12 (Currently Amended) An expression vector comprising ~~Vector, wherein it contains~~
~~at least one copy of~~ a nucleic acid according to claim 1.

Claim 13 (Currently Amended) A cell comprising an expression ~~Cell, wherein it is~~
~~transfected with a nucleic acid according to claim 1 or a vector according to~~ containing a nucleic
~~acid of claim 1~~ 12.

Claim 14 (Currently Amended) A cell ~~Cell~~ according to claim 13, wherein the cell ~~it~~ is
selected from the group consisting ~~that consists~~ of PC-3 cells, LNCaP cells, CV-1 cells, CV-1
cells and Dunning cells.

Claim 15 (Cancelled)

Claim 16 (Withdrawn) Use of

- a. A nucleic acid according to claim 1,
- b. a polypeptide coded by a nucleic acid of claim 1,
- c. a peptide with the amino acid sequence that is shown in Seq ID NO 5 or
- d. a cell transformed with a nucleic acid of claim 1,
- e. to identify effectors of a polypeptide coded by a nucleic acid of claim 1.

Claim 17 (Withdrawn) Test system for detecting effectors of the polypeptides according to the
invention, whereby

- a. A reporter gene is expressed in a cell transformed with a nucleic acid of claim
1, and

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- b. this cell, if it contains only a little or no polypeptide coded by a nucleic acid of claim 1, is transfected in addition with a vector comprising a nucleic acid of claim 1,
- c. the cells are cultivated in the presence or absence of the test substances and
- d. the alteration of the expression of the reporter gene is measured.

Claim 18 **(Withdrawn)** Test system for detecting test substances with antiandrogenic activity, whereby

- a. A reporter gene is expressed in a cell transformed with a nucleic acid of claim 1, and
- b. this cell, if it contains only a little or no polypeptide coded by a nucleic acid of claim 1 is transfected in addition with a vector containing a nucleic acid of claim 1,
- c. the cell is cultivated in the presence or absence of test substances with the simultaneous presence of an androgen, and
- d. the alteration of the expression of the reporter gene is measured.

Claim 19 **(Cancelled)**

Claim 20 **(Withdrawn)** Process for the preparation of a pharmaceutical agent, whereby

- a. Substances are brought into contact with a test system according to claim 17,
- b. the action of the substances on the test system in comparison to controls is measured,
- c. a substance that shows a modulation of the expression of the heterologous polypeptide in step b. is identified,

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- d. and the substance that is identified in step c. is mixed with formulation substances that are commonly used in pharmaceuticals.

Claim 21 (Cancelled)

Claim 22 (Cancelled)

Claim 23 (Withdrawn) Use of a nucleic acid according to claim 1 in the gene therapy of androgen-dependent diseases.

Claim 24 (Previously Presented) Use of a substance that is a pharmaceutical agent that is prepared according to claim 20 for the production of a medication for the treatment of androgen-dependent diseases.

Claim 25 (Previously Presented) Use of a substance that is a pharmaceutical agent that is prepared according to claim 20 for the production of a medication for male birth control.

Claim 26 (New) A process for producing an androgen-binding receptor, comprising cultivating a cell of claim 13 that comprises an expression vector comprising a nucleic acid that codes for an androgen-binding receptor, and producing said androgen-binding receptor in said cell.

Claim 27 (New) An isolated nucleic acid according to claim 1, wherein said nucleic acid codes for an androgen-binding receptor that acts as a transrepressor for the androgen receptor.

Claim 28 (New) An isolated nucleic acid according to claim 1, wherein said nucleic acid codes for a human androgen-binding receptor.